1716658

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Feed-through connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Male connector, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: DFK-PC 5/..-STF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: Z1L Slotted Pozidriv, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

## Your advantages

- · Well-known connection principle allows worldwide use
- · Low temperature rise, thanks to maximum contact force
- · Allows connection of two conductors
- · Flange system enables secure fixing to the housing panel by means of tool-free snap-in locking or screws
- · Shroud for professional EMC shield connection on the front of the device
- · Screwable flange for superior mechanical stability

### **Commercial Data**

Item number	1716658
Packing unit	1 pc
Minimum order quantity	10 рс
Sales Key	AA04
Product Key	AADWEB
Catalog Page	Page 549 (C-1-2013)
GTIN	4046356137270
Weight per Piece (including packing)	40.79 g
Weight per Piece (excluding packing)	38.53 g
Customs tariff number	85366990
Country of origin	PL

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## Technical Data

### Product properties

Туре	Feed-through header
Product line	COMBICON Connectors L
Product type	Feed-through connector
Product family	DFK-PC 5/STF
Number of positions	6
Pitch	7.62 mm
Number of connections	6
Number of rows	1
Mounting flange	Screw flange
Number of potentials	6

### **Electrical properties**

Nominal current I <sub>N</sub>	41 A
Nominal voltage U <sub>N</sub>	1000 V
Degree of pollution	3
Contact resistance	0.5 mΩ
Rated voltage (III/3)	630 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

### Connection data

Connection	technology
------------	------------

Туре	Feed-through header
Connector system	COMBICON PC 5
Nominal cross section	6 mm <sup>2</sup>
Type of contact	Male connector
Interlock	
Locking type	Screw locking

Screw flange

Mounting flange

Conductor connection	
Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	0 °
Conductor cross section solid	0.2 mm² 10 mm²
Conductor cross section flexible	0.2 mm² 6 mm²
Conductor cross section AWG	24 10
Conductor cross section flexible, with ferrule without plastic	0.25 mm <sup>2</sup> 6 mm <sup>2</sup>

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sleeve	
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> 4 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm² 4 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² 1.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.25 mm² 2.5 mm²
Cylindrical gauge a x b / diameter	3.6 mm x 3.1 mm / 3.4 mm
Stripping length	10 mm
Tightening torque	0.7 Nm 0.8 Nm

### Mounting

Drive form screw head	Slotted Pozidriv (Z1L)
Drive form screw head	Slotted Pozidriv (Z1L)

### Material specifications

#### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 μm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 μm Sn)

Material data - housing

Color (Housing)	green (6021)
Insulating material	PA
Insulating material group	1
CTI according to IEC 60112	600
Flammability rating according to UL 94	VO
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2- 13	775
Temperature for the ball pressure test according to EN 60695- 10-2	125 °C
Material data – actuating element	
Color ()	0

#### Notes

Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be
	plugged in or disconnected when carrying voltage or under load.

Dimensions



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Dimensional drawing	h
Pitch	7.62 mm
Width [w]	80.34 mm
Height [h]	26.24 mm
Length [I]	48.95 mm
Installed height	26.24 mm

### Mechanical tests

Specification   IEC 60999-1:1999-11     Result   Test passed     Pull-out test   IEC 60999-1:1999-11     Specification   IEC 60999-1:1999-11     Conductor cross section/conductor type/tractive force setpoint/actual value   0.2 mm² / solid / > 10 N
Pull-out test IEC 60999-1:1999-11   Conductor cross section/conductor type/tractive force 0.2 mm² / solid / > 10 N
Specification IEC 60999-1:1999-11   Conductor cross section/conductor type/tractive force 0.2 mm² / solid / > 10 N
Conductor cross section/conductor type/tractive force 0.2 mm² / solid / > 10 N
sationinfactual value
setpoint/actual value
0.2 mm <sup>2</sup> / flexible / > 10 N
10 mm² / solid / > 90 N
6 mm² / flexible / > 80 N
Insertion and withdrawal forces
Result Test passed

Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 N
Resistance of inscriptions	
Specification	IEC 60068-2-70:1995-12
Result	Test passed
Polarization and coding	
Specification	IEC 60512-13-5:2006-02
Result	Test passed
Visual inspection	
Specification	IEC 60512-1-1:2002-02
Result	Test passed
Dimension check	
Specification	IEC 60512-1-2:2002-02
Result	Test passed

Electrical tests



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Thermal test   Test group C	
Specification	IEC 60512-5-1:2002-02
Tested number of positions	12
Insulation resistance	
Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ
Air clearances and creepage distances	
Specification	IEC 60664-1:2007-04
Insulating material group	1
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	630 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	8 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 mm

### Environmental and real-life conditions

Vibration test		
Specification	IEC 60068-2-6:2007-12	
Frequency	10 - 150 - 10 Hz	
Sweep speed	1 octave/min	
Amplitude	0.35 mm (10 Hz 60.1 Hz)	
Sweep speed	5g (60.1 Hz 150 Hz)	
Test duration per axis	2.5 h	
Durability test		
Specification	IEC 60512-9-1:2010-03	
Impulse withstand voltage at sea level	9.8 kV	
Contact resistance R <sub>1</sub>	0.5 mΩ	
Contact resistance R <sub>2</sub>	0.6 mΩ	
Insertion/withdrawal cycles	50	
Insulation resistance, neighboring positions	> 5 MΩ	
Climatic test		
Specification	ISO 6988:1985-02	
Corrosive stress	0.2 $\mathrm{dm^3}\mathrm{SO_2}\mathrm{on}$ 300 $\mathrm{dm^3/40}~^\circ\mathrm{C/1}$ cycle	



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Thermal stress	100 °C/168 h
Power-frequency withstand voltage	4.26 kV
mbient conditions	
Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C 70 °C
Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly)	-5 °C 100 °C

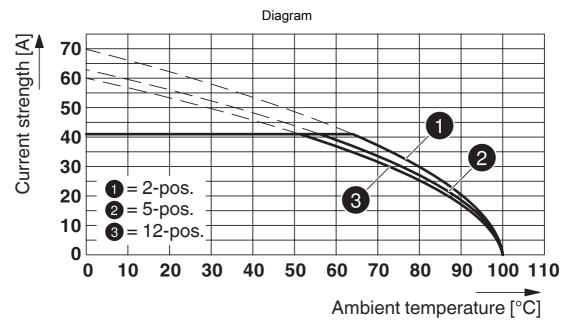
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## Drawings



Type: SPC 5/...-STF-7,62 with DFK-PC 5/...-STF-7,62 Conductor cross section: 10 mm<sup>2</sup>



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## Approvals

EAC Approval ID: B.01687

	Approval ID: E60425-19920722			
	Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
Use group B				
	600 V	41 A	24 - 8	-
Use group C				
	600 V	41 A	24 - 8	-

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## Classifications

### ECLASS

ECLASS-9.0	27440309
ECLASS-10.0.1	27440309
ECLASS-11.0	27460202

### ETIM

	ETIM 8.0	EC002638
UNSPSC		
	UNSPSC 21.0	39121400

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## **Environmental Product Compliance**

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Accessories

CP-PC RD - Coding profile

1701967 https://www.phoenixcontact.com/us/products/1701967

Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red



### DFK-PC 16-SS - Accessories

1705449 https://www.phoenixcontact.com/us/products/1705449



Screw set for DFK-PC 16... connectors

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#### SZK PZ1 VDE - Screwdriver

#### 1206450

https://www.phoenixcontact.com/us/products/1206450



Screwdriver, PZ crosshead, VDE insulated, size: PZ 1 x 80 mm, 2-component grip, with non-slip grip

### SK 7,62/3,8:FORTL.ZAHLEN - Marker card

0804549

https://www.phoenixcontact.com/us/products/0804549



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size:  $7.62 \times 3.8$  mm

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#### SK 3,8 REEL P7,62 WH CUS - Marker card

#### 0825128

https://www.phoenixcontact.com/us/products/0825128



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: continuous x 3.8 mm

#### SK U/3,8 WH:UNBEDRUCKT - Marker card

0803906

https://www.phoenixcontact.com/us/products/0803906



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

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#### DFK-PC MOUNT SET - Accessories

#### 1054021

https://www.phoenixcontact.com/us/products/1054021

Contains 20 pcs. latch and screw elements for feed-through connectors each



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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com